



KATHOLIEKE UNIVERSITEIT
LEUVEN



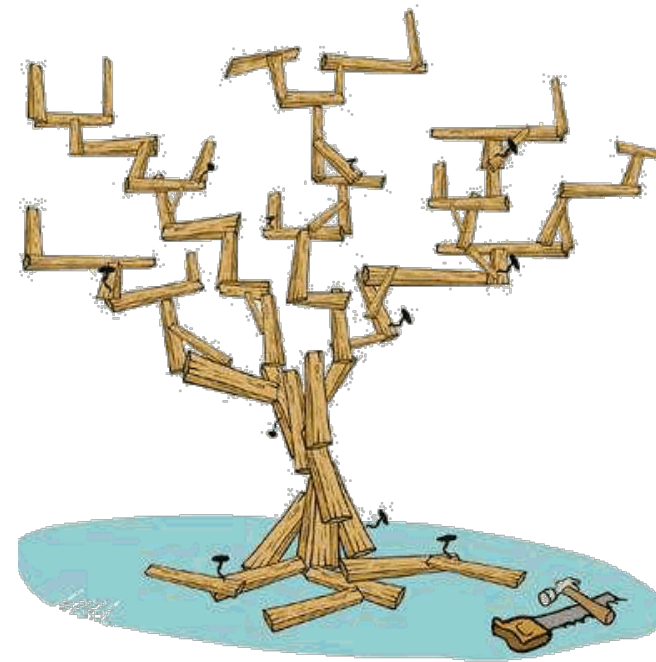
Trees of Texts

Models and methods for an
updated theory of medieval text
stemmatology

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Stemmatology

The discipline of deducing the copying order of texts

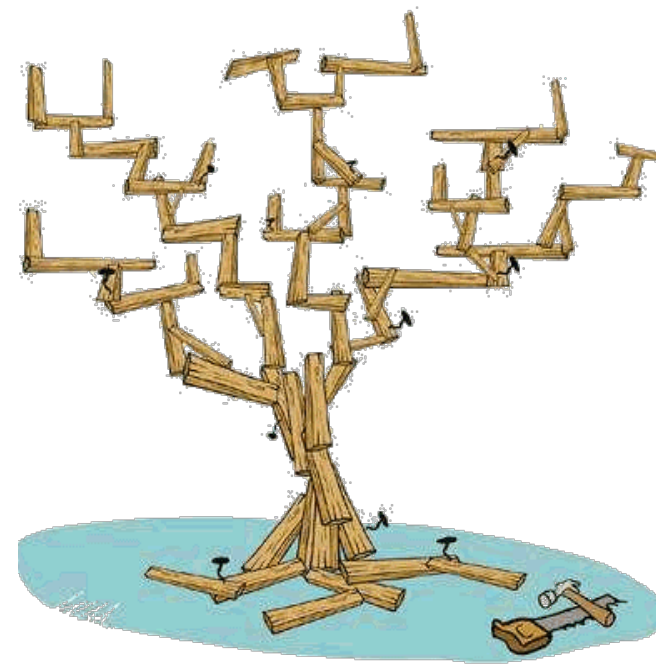


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Stemmatology

The discipline of deducing the copying order of texts

- The “method of Lachmann”

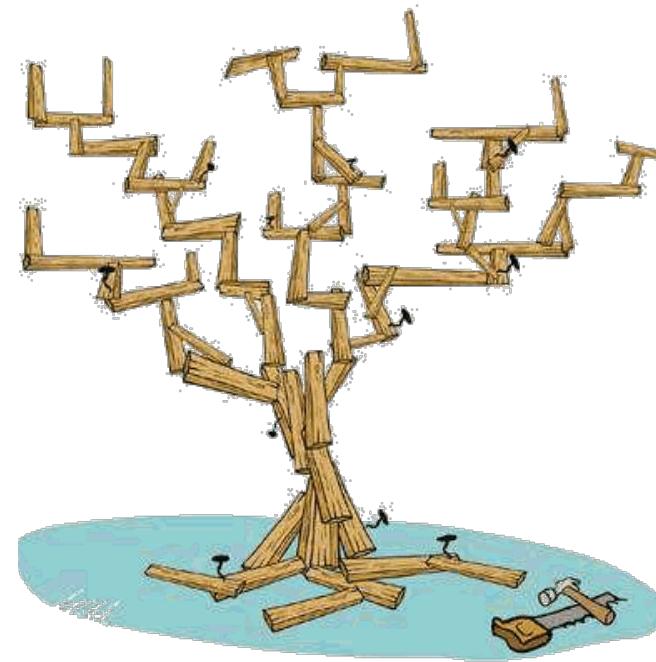


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Stemmatology

The discipline of deducing the copying order of texts

- The “method of Lachmann”
- Neo-Lachmannism

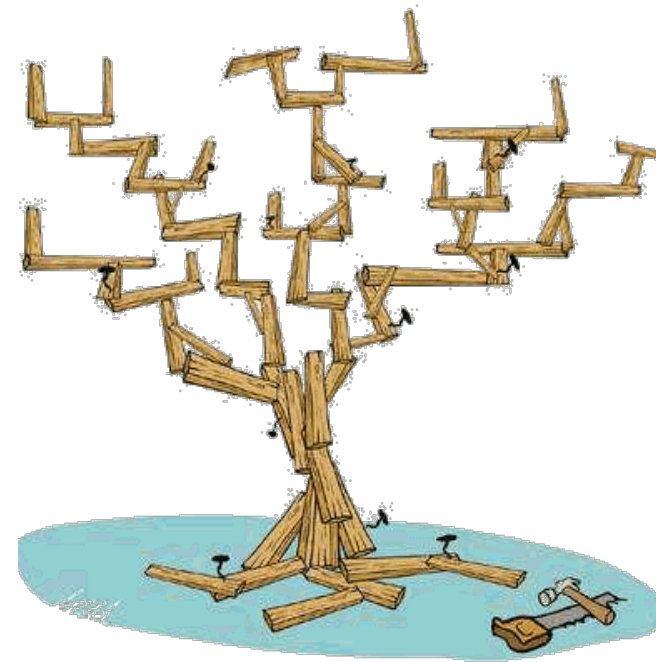


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Stemmatology

The discipline of deducing the copying order of texts

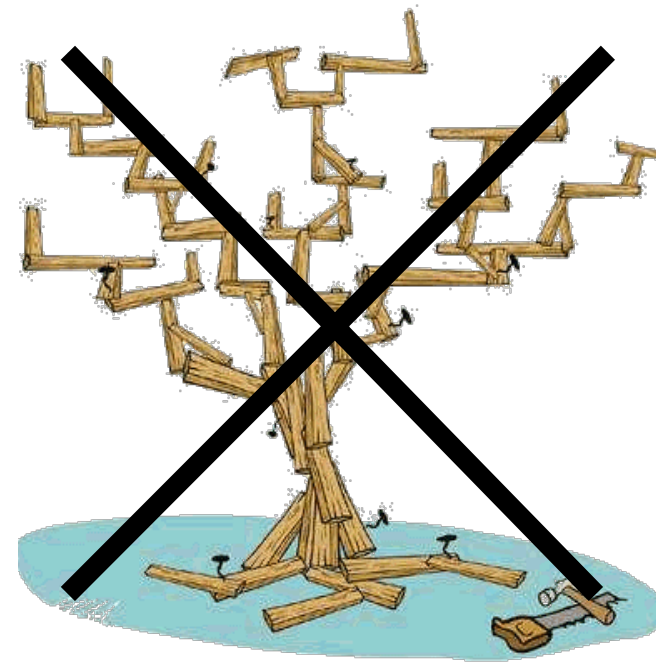
- The “method of Lachmann”
- Neo-Lachmannism
- Phylogenetic methods



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The problem

Too much *a priori* judgment, or no judgment at all?

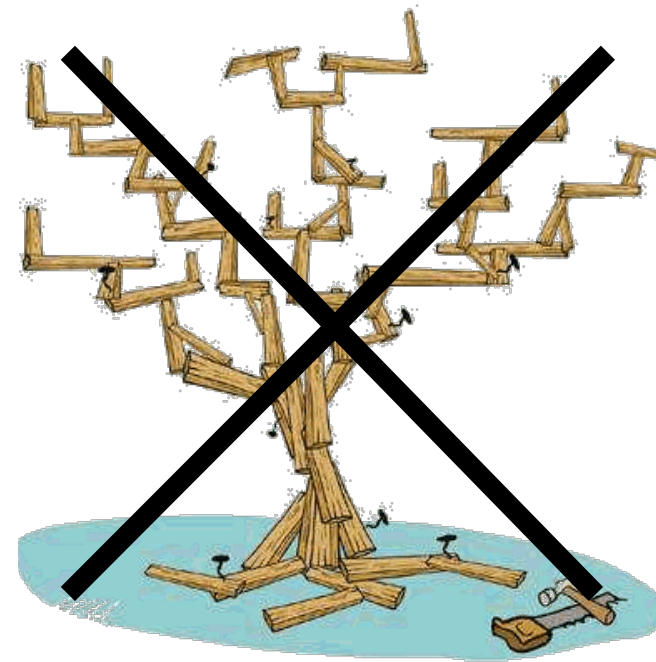


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The problem

Too much *a priori* judgment, or no judgment at all?

- Can we identify “significant error”?

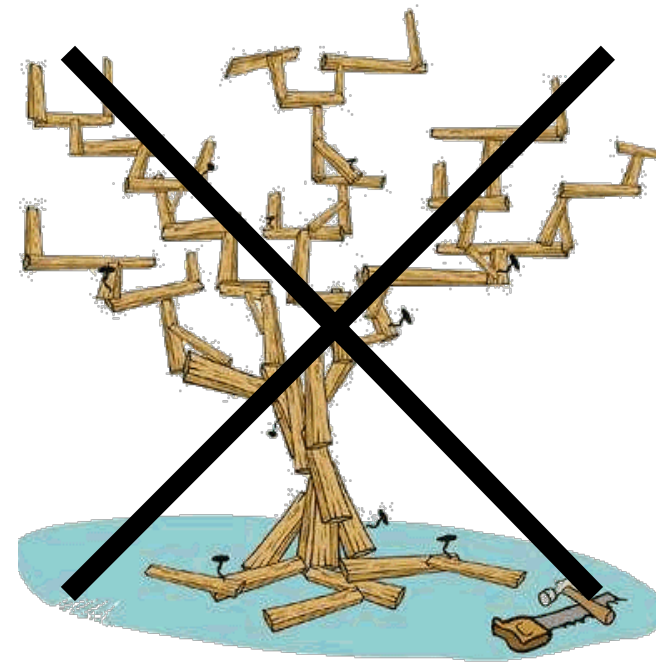


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The problem

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- Should we?

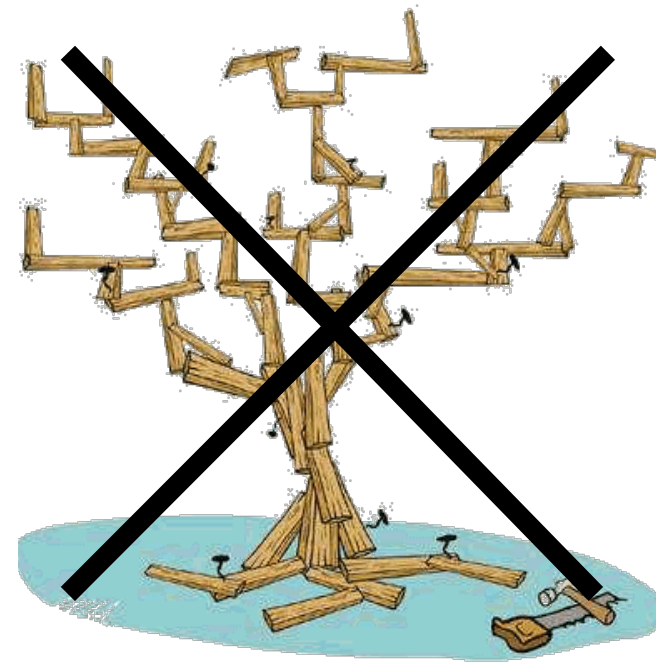


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The problem

Too much *a priori* judgment, or no judgment at all?

- Can we identify “significant error”?
- Should we?
- How do we test our hypotheses?



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An empirical model for text variation



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An empirical model for text variation

- Need to model the variation of readings within the text
- Need to model the “family tree” of witnesses to a text
- Need to find a method to cross-correlate these models



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Modeling text variation

The variant graph



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An alignment table

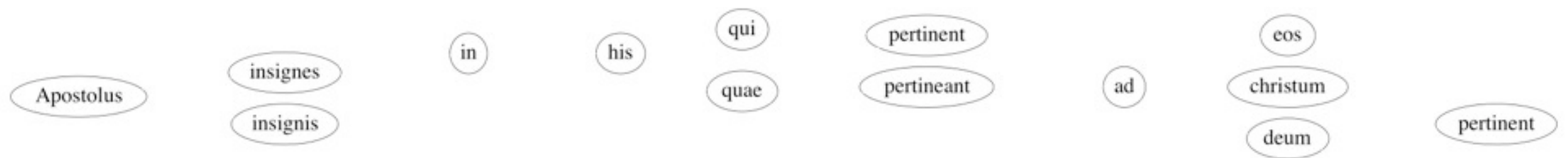
Va6	Apostolus	insignes			quae	pertineant	ad	deum	
Vb11	Apostolus	insignes			quae		ad	deum	pertinent
Vb12	Apostolus	insignis			quae	pertineant	ad	deum	
Vb18	Apostolus	insignes	in	his	qui	pertinent	ad	deum	
Vb20	Apostolus	insignes			quae	pertineant	ad	eos	
Vb21	Apostolus	insignes	in	his	quae	pertinent	ad	deum	
Vb9	Apostolus	insignes			quae	pertineant	ad	christum	

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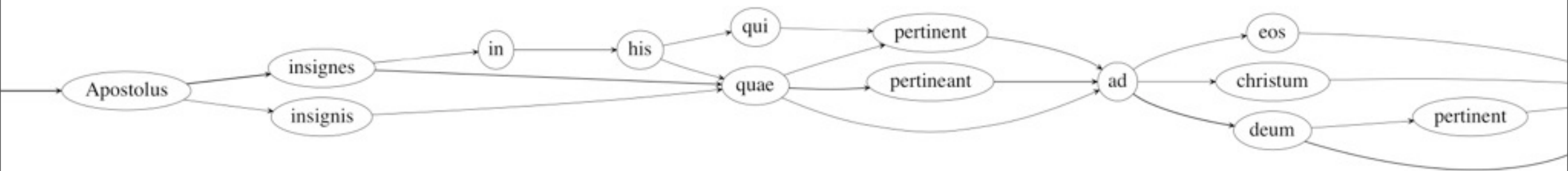
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Readings are nodes...



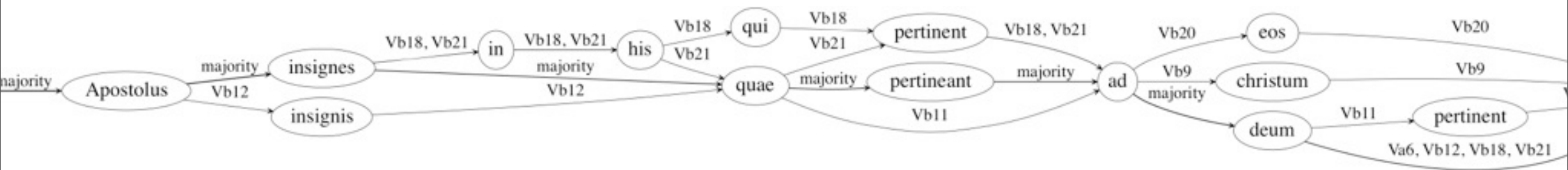
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...sequences are paths.



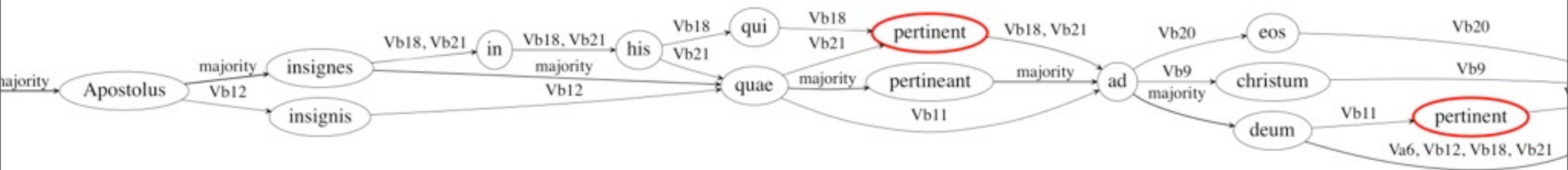
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The sequence graph



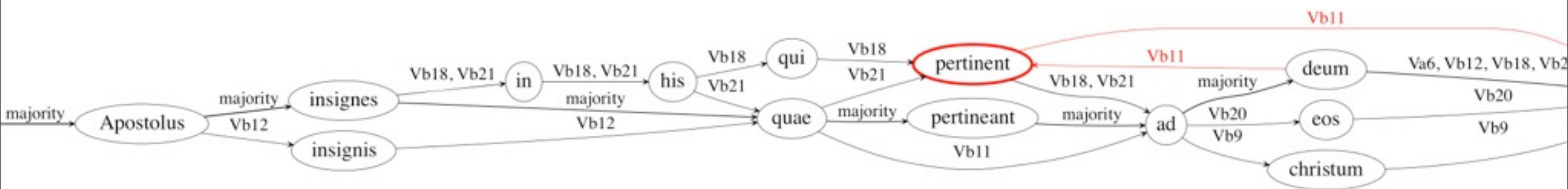
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Transpositions?



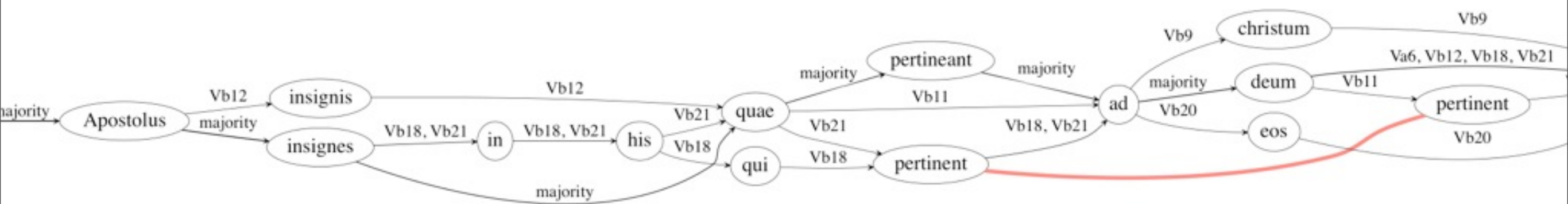
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One representation for transposition



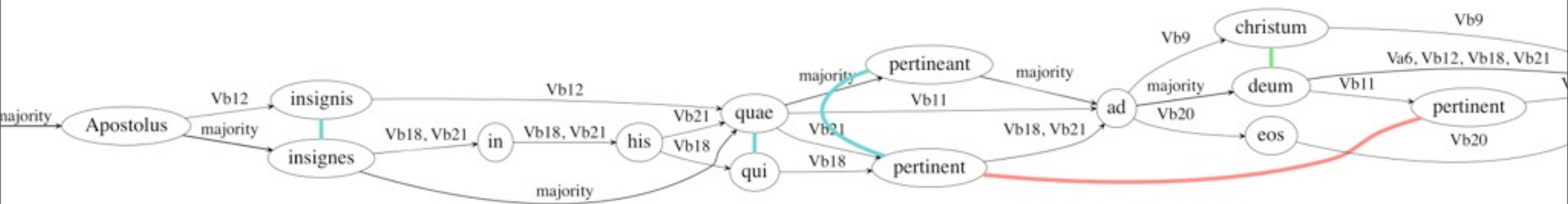
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Better representation for transposition



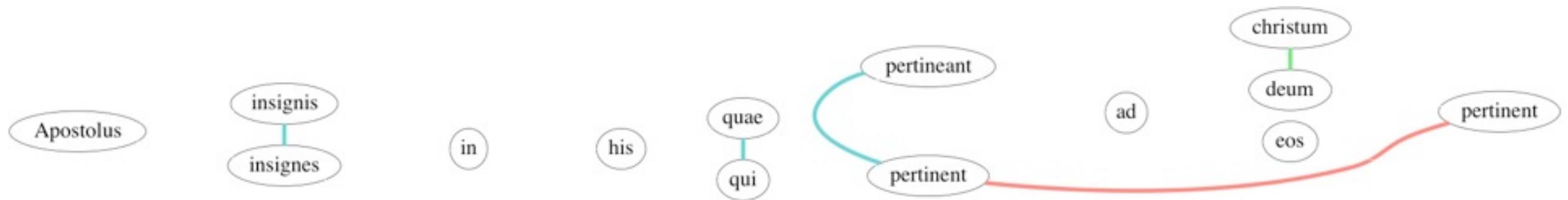
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Marking relationships in the graph



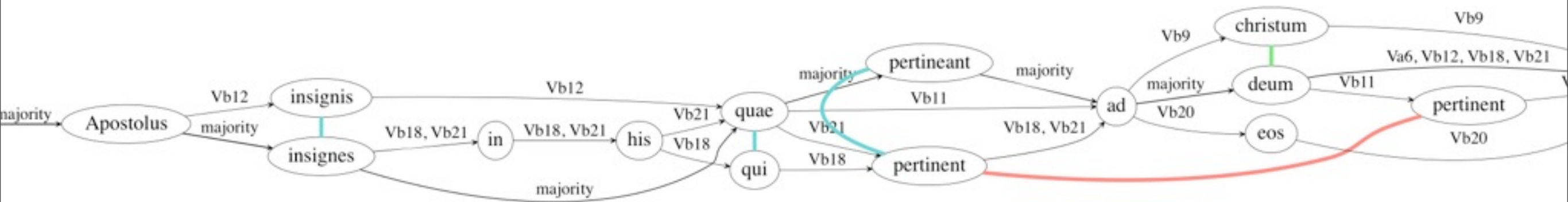
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The relationship graph



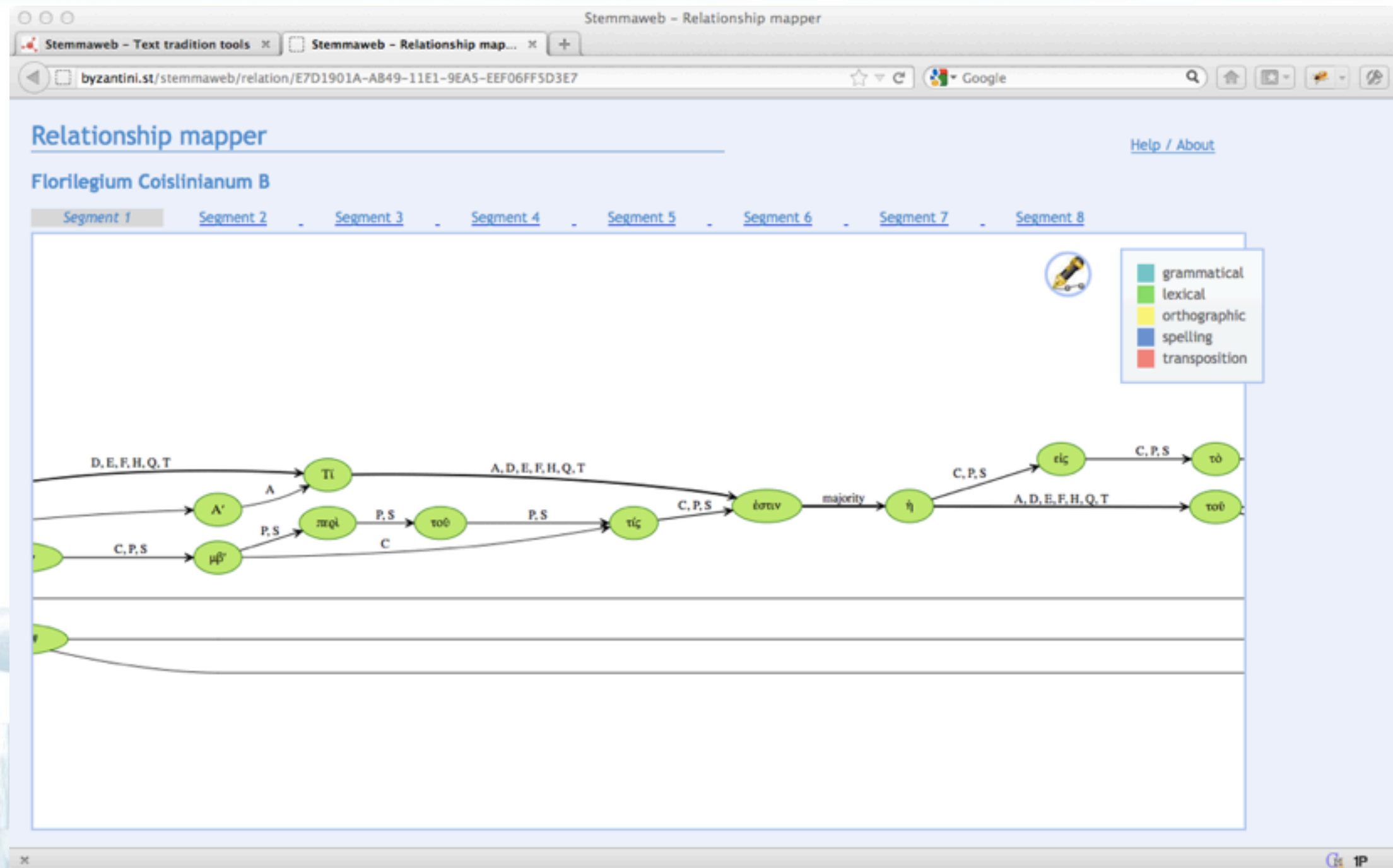
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Text model: sequences + relationships



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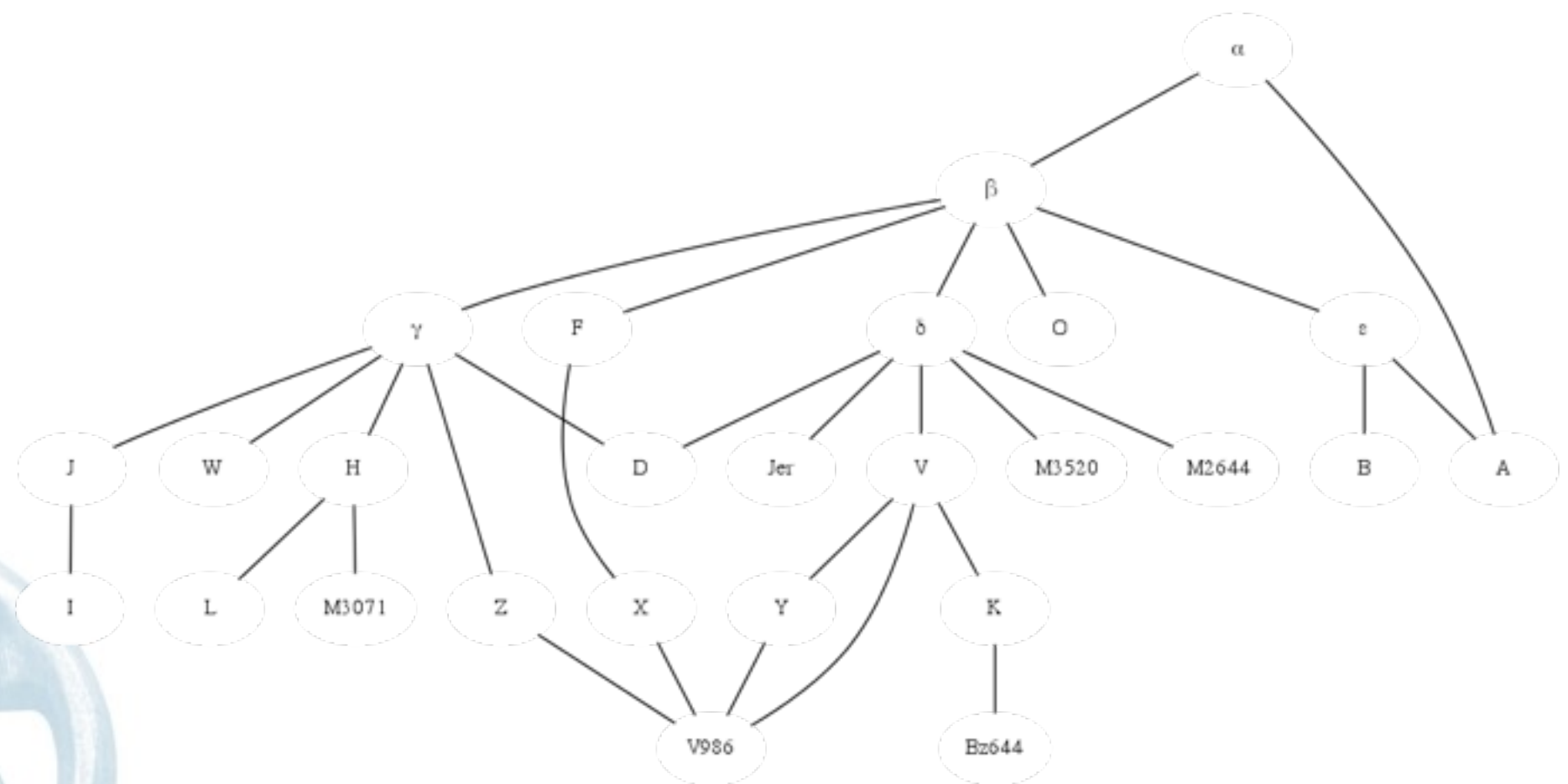
Tool: mapping relationships



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Modeling witness relationships

The stemma graph

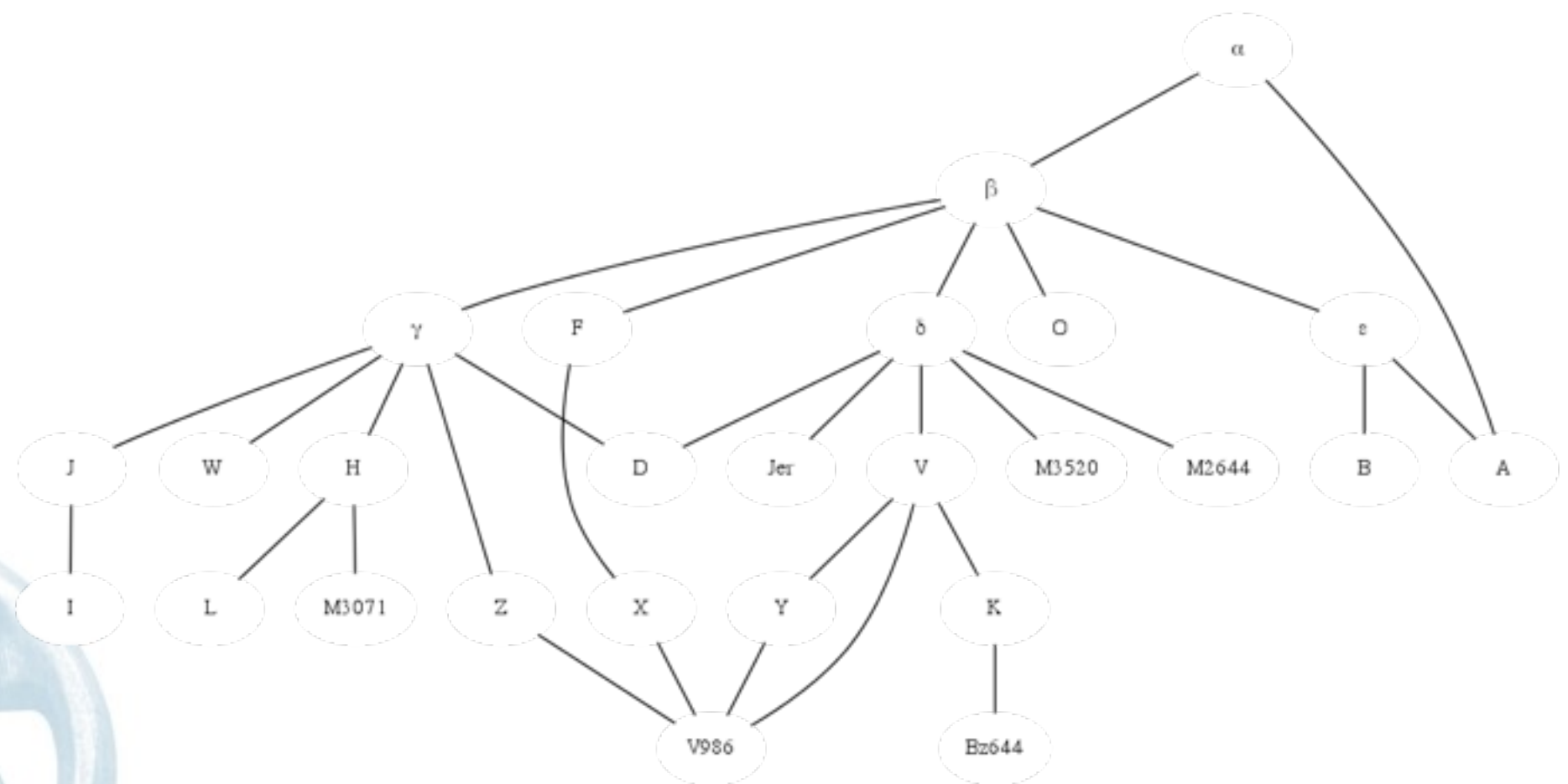


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Modeling witness relationships

The stemma graph

- Rooted

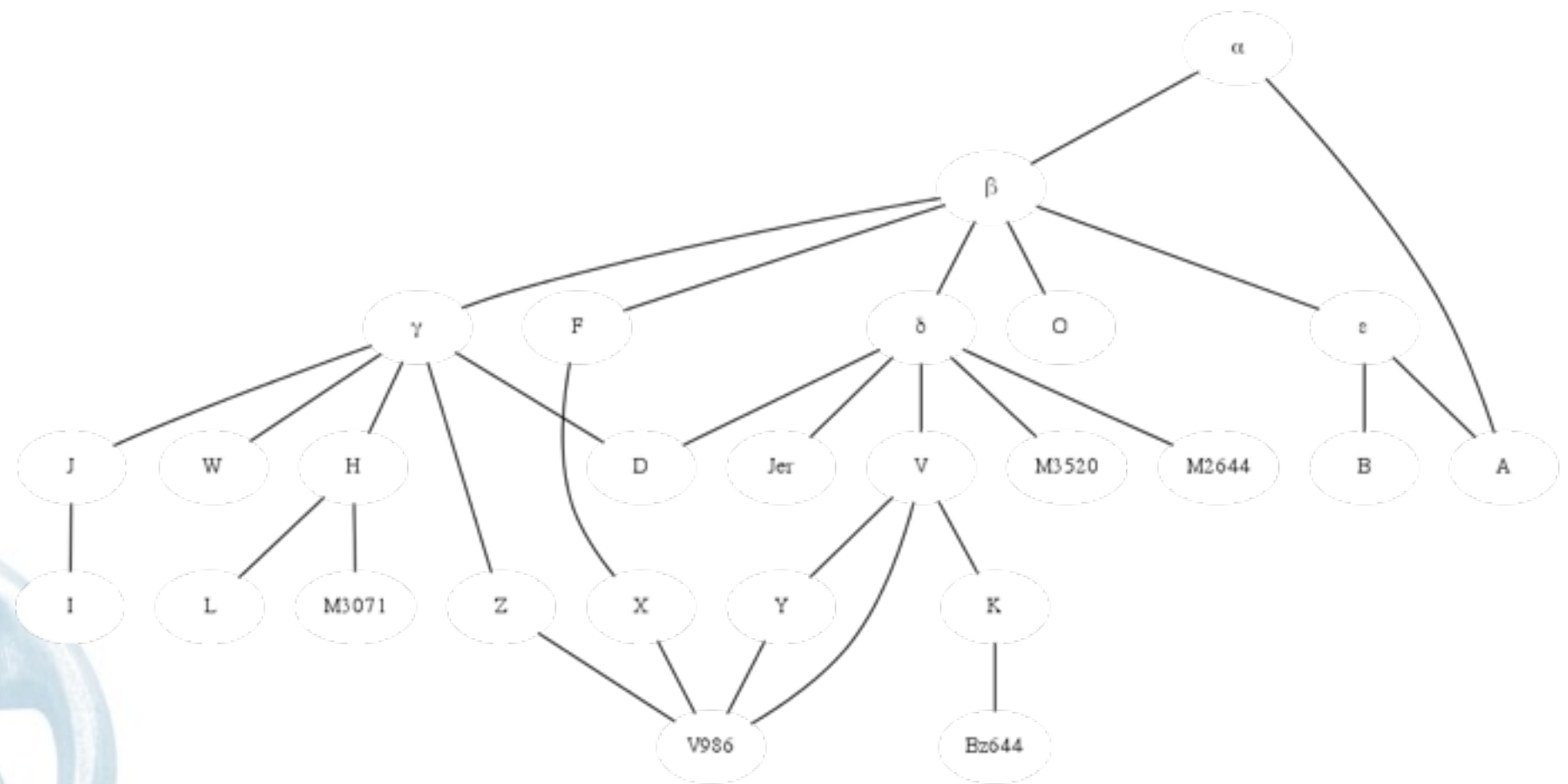


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Modeling witness relationships

The stemma graph

- Rooted
- Directed

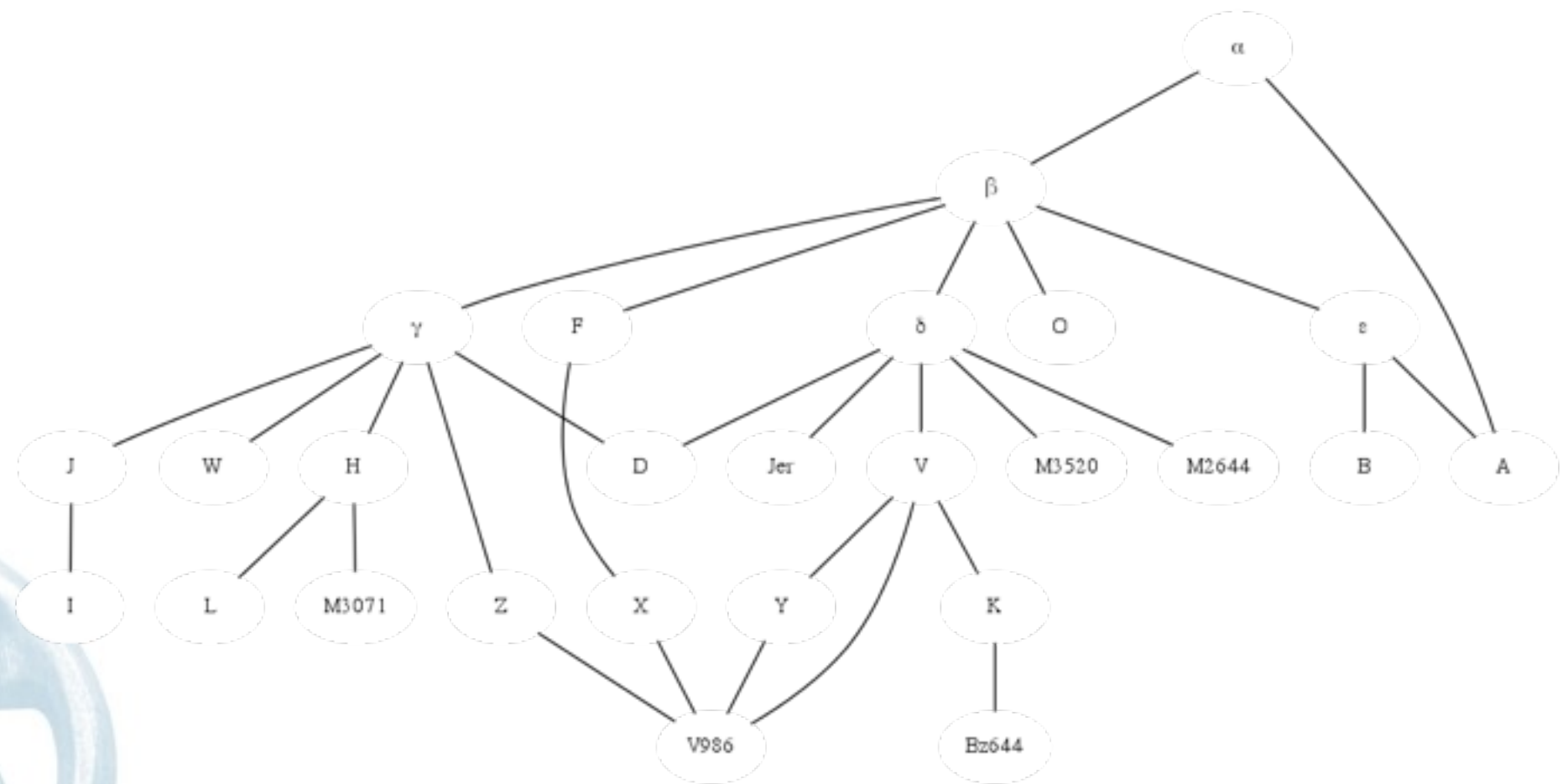


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Modeling witness relationships

The stemma graph

- Rooted
- Directed
- Acyclic

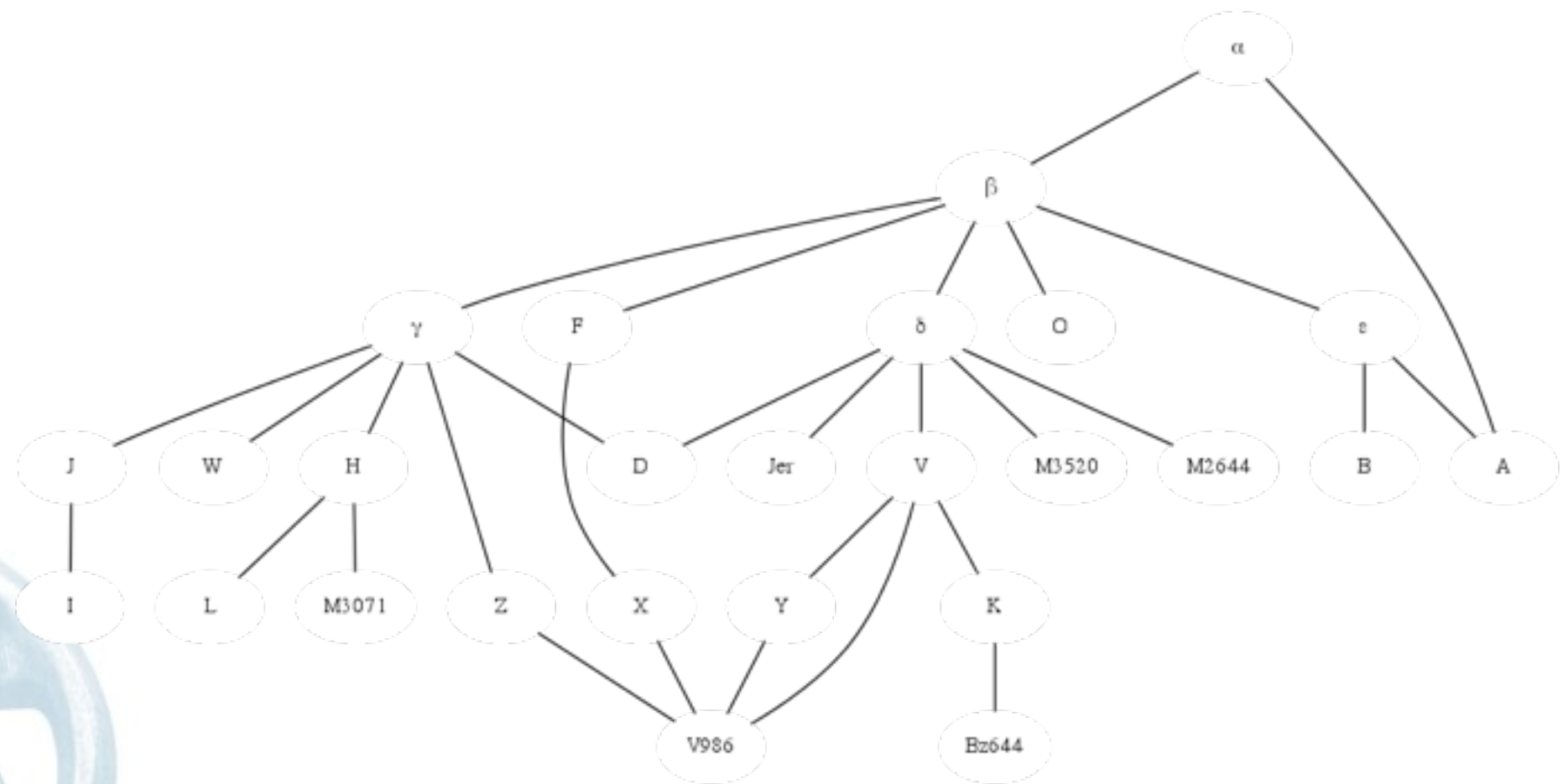


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Modeling witness relationships

The stemma graph

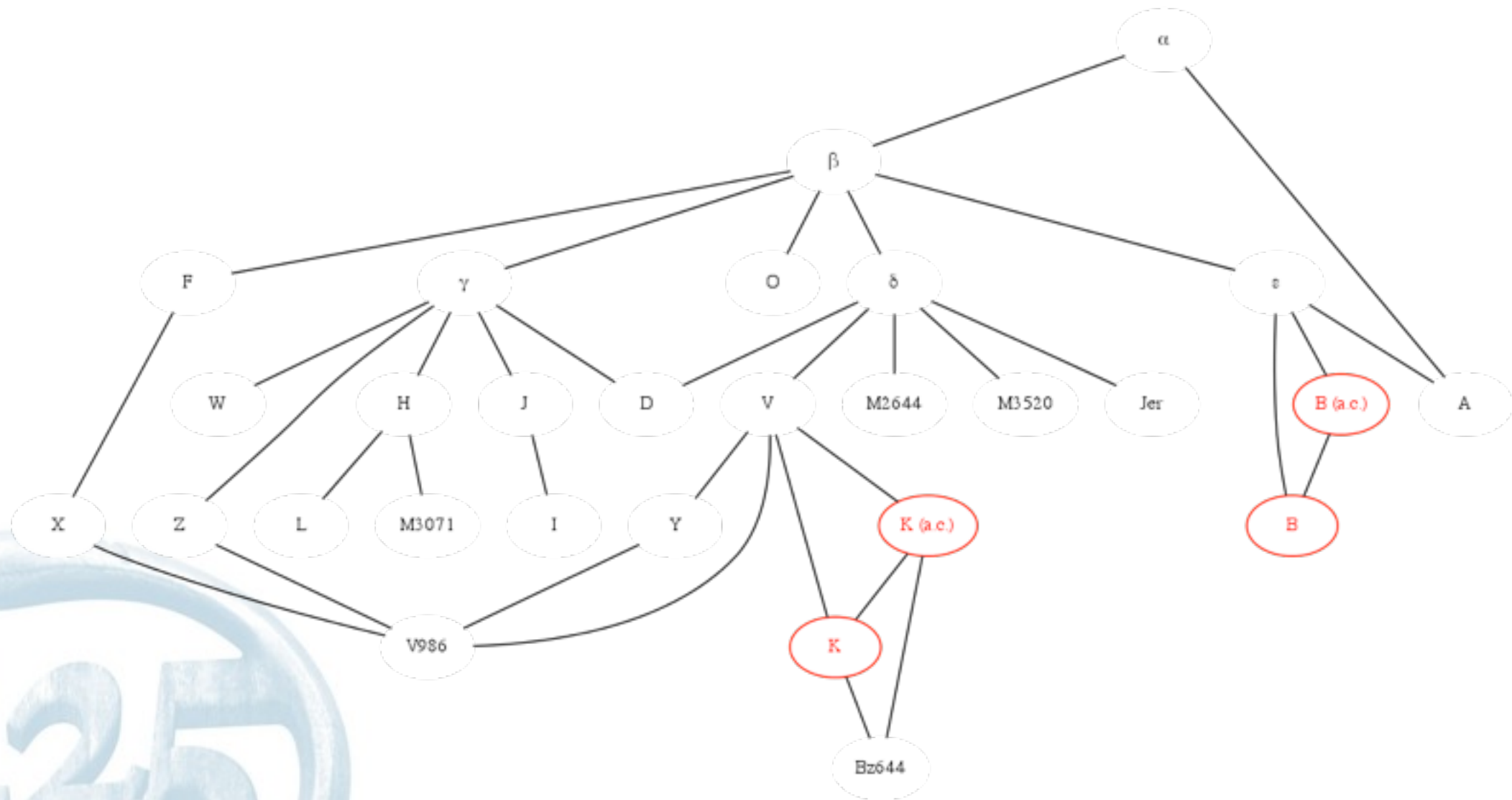
- Rooted
- Directed
- Acyclic
- Connected



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Handling witness corrections

1. Corrections from a single source



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```

graph TD
    alpha((α)) --- beta((β))
    alpha --- epsilon((ε))
    beta --- gamma((γ))
    beta --- O((O))
    beta --- F((F))
    beta --- delta((δ))
    beta --- tau((τ))
    gamma --- H((H))
    gamma --- J((J))
    gamma --- W((W))
    gamma --- Dac((D(ac)))
    gamma --- Z((Z))
    H --- M3071((M3071))
    H --- L((L))
    J --- I((I))
    W --- Z
    Dac --- X((X))
    X --- V986((V986))
    F --- M2644((M2644))
    F --- M3520((M3520))
    delta --- M3520
    delta --- Jer((Jer))
    delta --- V((V))
    tau --- Bac((B(ac)))
    tau --- A((A))
    Bac --- B((B))
    V --- Y((Y))
    V --- Kac((K(ac)))
    V --- K((K))
    Kac --- K
    K --- Bz644((Bz644))
    D((D))
  
```

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Tool: evaluating variants

Stexaminer – Notre besoin artificiel

Stexaminer – Notre besoin artifici... Stexaminer – Sermo Augustini 1... +

localhost:3000/stexaminer/C99FCAA-D18A-11E1-8D53-888D1214481C

Stexaminer [Help / About](#)

Notre besoin artificiel

Analysis options

7	Je n'ai	Jai	
11	(omitted)
15	des	de	
17	rationaliste	rationaliste	
19	celle	celui	cle
21	croit	croient	crois
22	(omitted)	en	
24	m'inspirent	minspire	

Statistics for readings at 19:

celle - copied 6 time(s), changed 1 time(s)
Reading root(s) at T1

celui - copied 3 time(s), changed 0 time(s)
Reading root(s) at C, J
Reading parent(s):

- r97.3 (cle) - no syntactic relation

cle - copied 0 time(s), changed 3 time(s)
Reading root(s) at A
Reading parent(s):

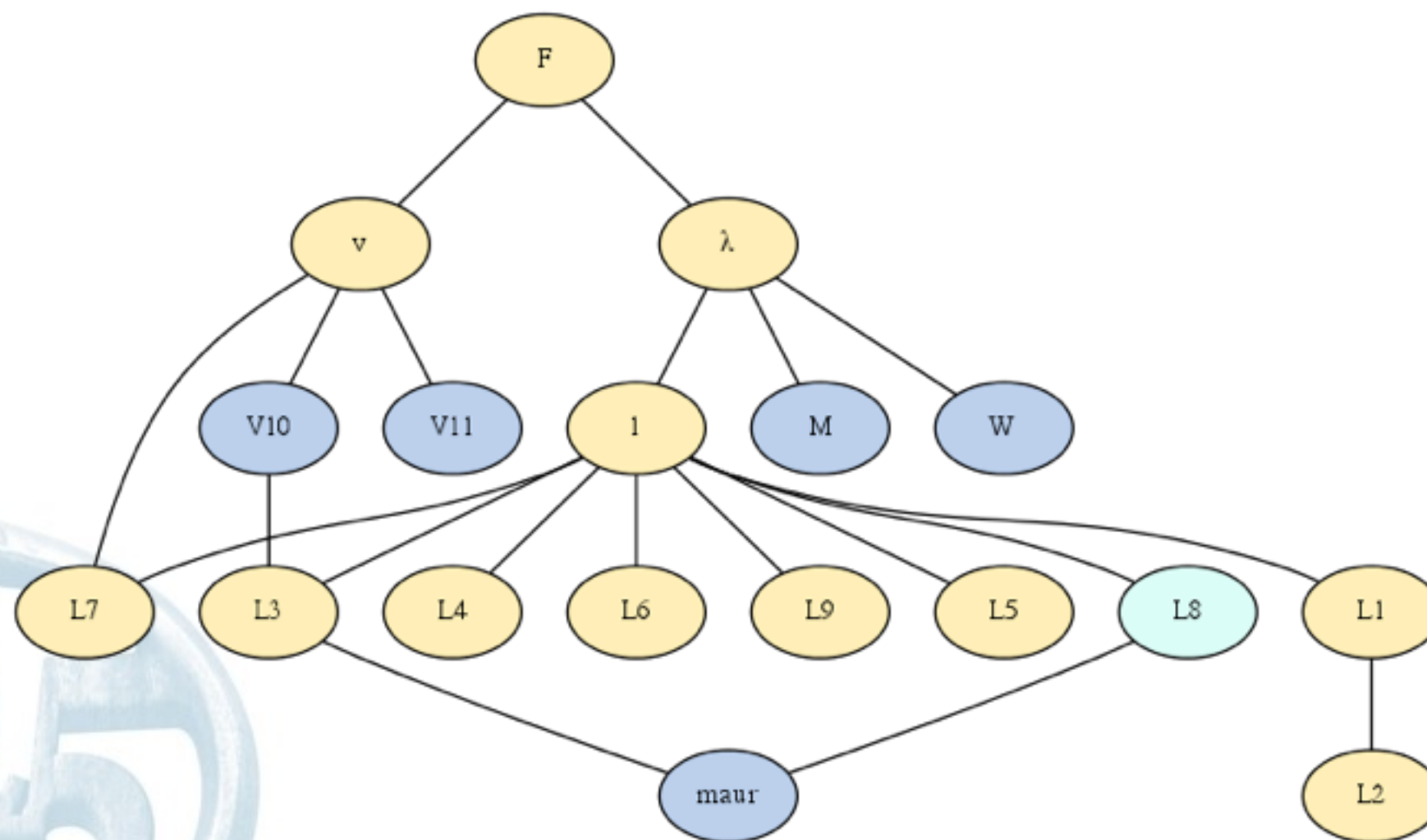
- r97.2 (celle) - no syntactic relation

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Sunday, December 16, 12

A coincidental variant

Multiple sources in the tree
Not all same-color nodes are connected

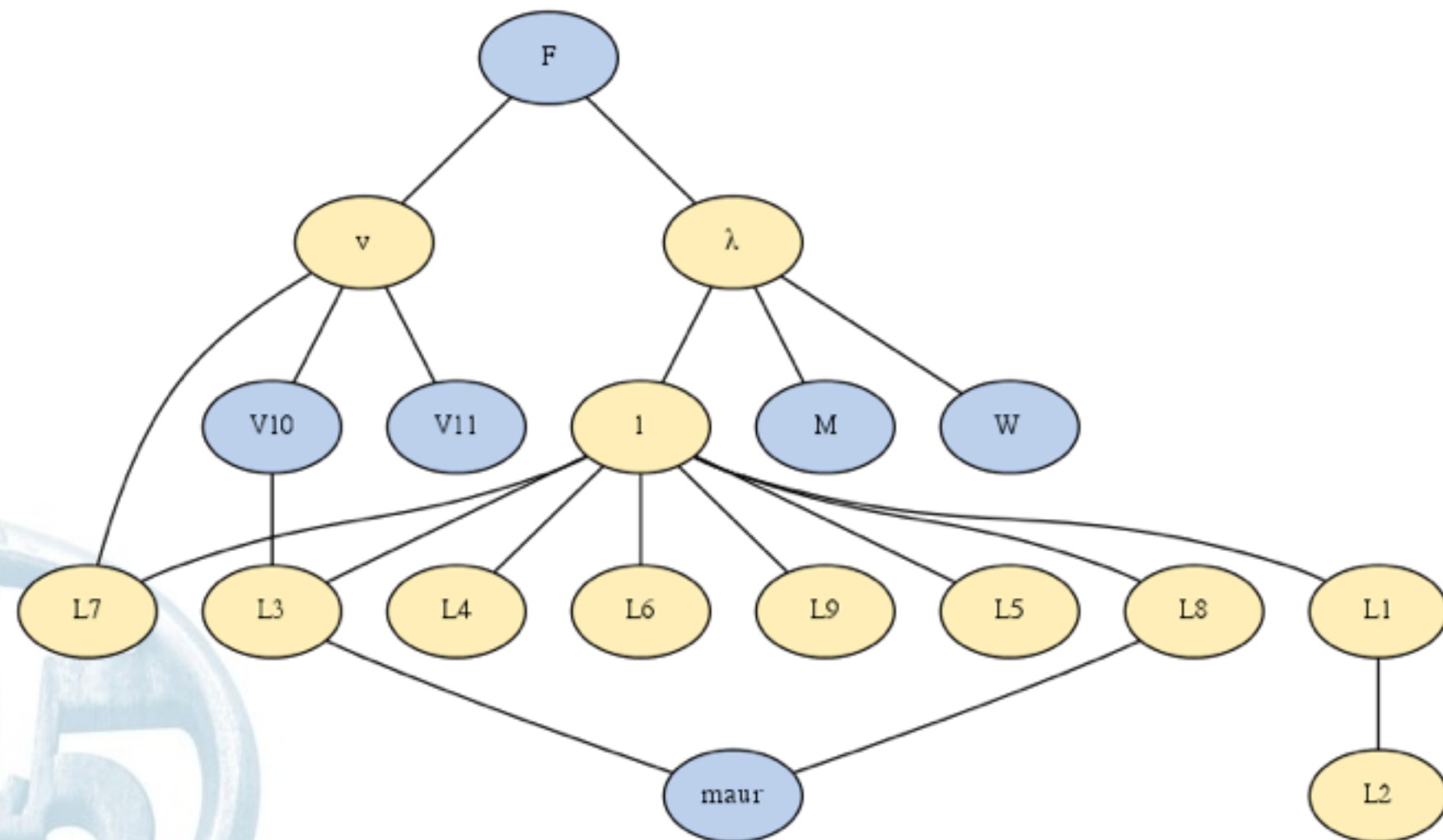


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A reverted variant

Multiple sources in the tree

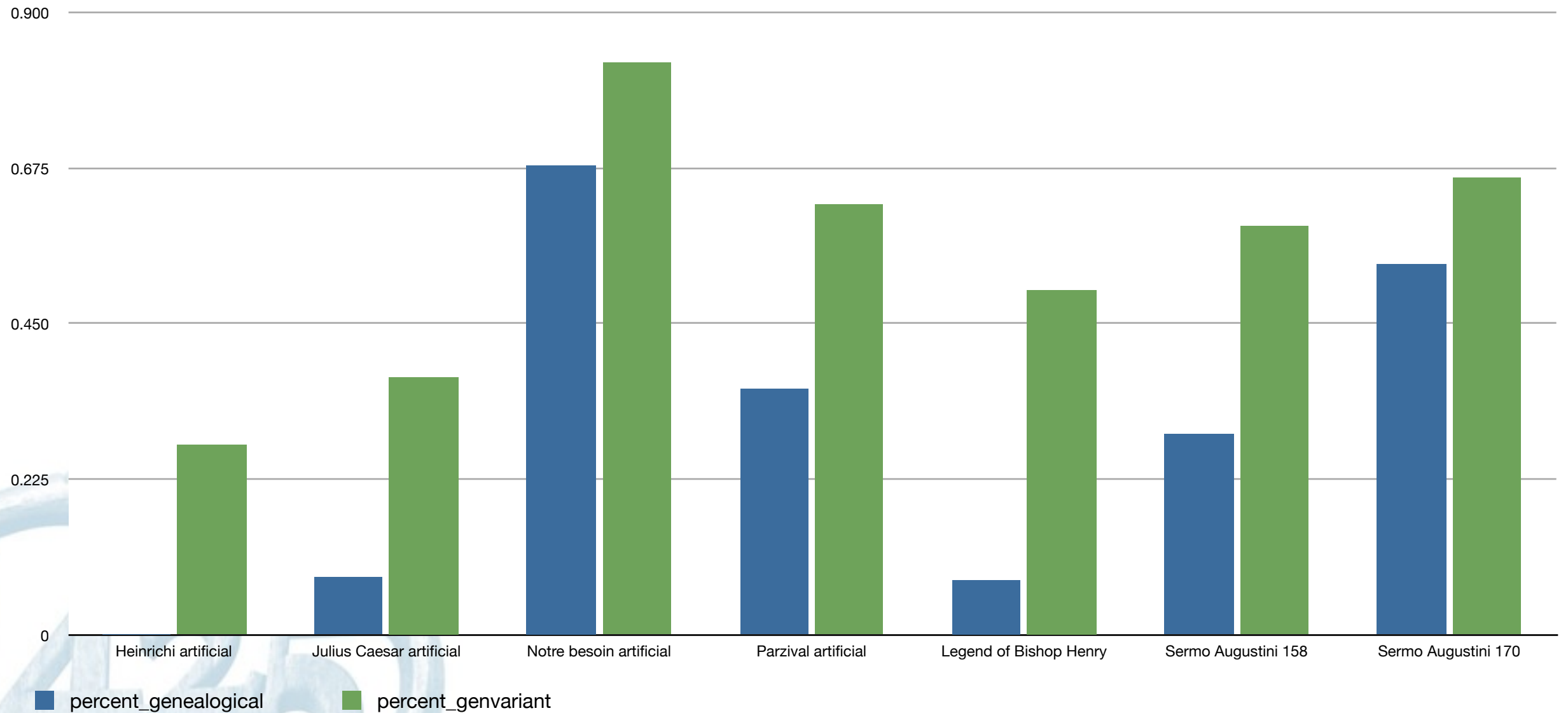
All but one source has an ancestor in the group



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The payoff: gathering data

Chart 3



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Coming soon



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Coming soon

- Coincidental vs. reverted variants



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Coming soon

- Coincidental vs. reverted variants
- Types of variants that tend to get reverted



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Coming soon

- Coincidental vs. reverted variants
- Types of variants that tend to get reverted
- Frequency of transmission of ‘unimportant’ variants



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Coming soon

- Coincidental vs. reverted variants
- Types of variants that tend to get reverted
- Frequency of transmission of 'unimportant' variants
- Frequency of non-transmission of 'important' variants

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Use the source

- Software at <http://github.com/tla/stemmatology>
- Service (shortly open for business) at <http://treeoftexts.arts.kuleuven.be/stemmaweb>
- Microservice interfaces available for interoperability with other tools



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